T-110.5100 Laboratory Works in Datacommunications Software (4 cr)
&
T-110.5200 Laboratory Works on Information Security (4 cr)

Introduction lecture
8.9.2009

What's New?

- Virtual assignment environment
- No need for a physical class room nor computers that need to be reserved → no reservation system
- No need for separate system for assignment submissions

Contents

Getting hands on experience on the topics of the Computer Networks course (prerequisite).

Configuring and inspecting in practise
- computer networks
- network services
- network security mechanisms

Monitoring and analyzing network traffic.

Passing the course

- You have to do four assignments

- If participating on both courses:

  - T-110.5100: assignments #1-4

  - T-110.5200: assignments #2-5

- 75% of points total from the assignments are required to pass the course

Material

- IETF RFCs
- Unix Manual pages (man man)
- Nelli: O'Reilly Safari Books
- Linux Documentation Project (LDP)

Assignments

- Assignments are done individually in the virtual assignment environment

- T-110.5100: Network tools, DNS, Email server, Ipv6

- T-110.5200: Network tools, Network filesystems, Firewall, Crypto-filesystem, IPsec VPN

- A possible additional assignment; announced later

Assignment Environment

- Three virtual hosts per student

Local link   Local link

eth1   eth1   eth2   eth1

eth0   eth0   eth0

10.0.XX.2   10.0.XX.1   10.0.XX.3
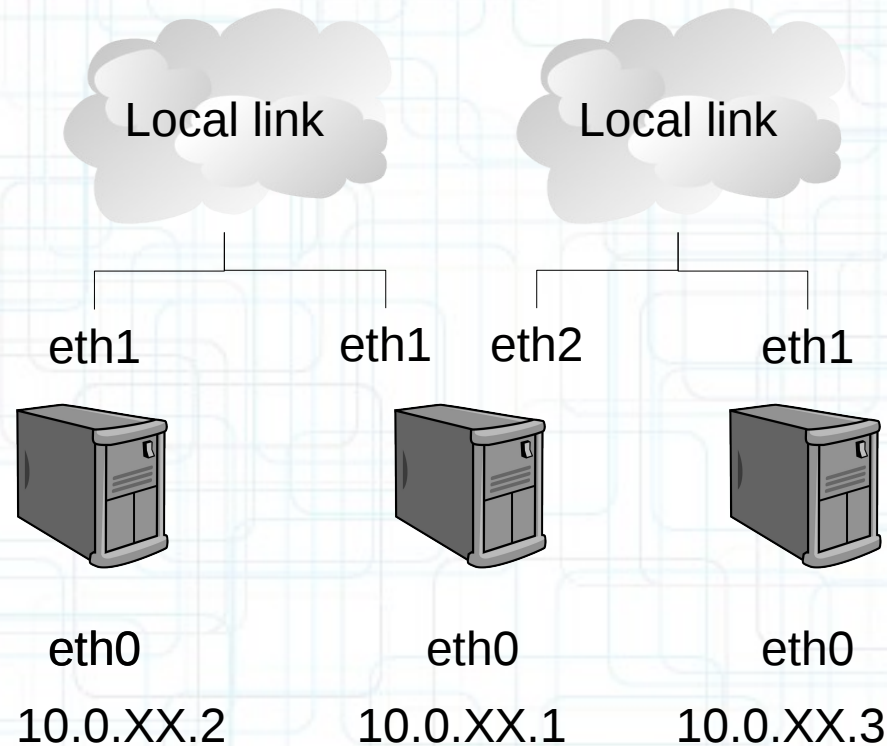
- Further instructions are sent through email (addresses and ports, password)

Submissions

- Noppa will include more detailed submissions instructions.

- The submissions are retrieved by a scheduled script from the primary host (eth0: 10.0.xx.1).

- Check that your primary host's SSH daemon is responding and the public key file (authorized_keys) is in the .ssh/ directory of the root user. If you add your own public keys, make sure that you won't overwrite the existing keys.

Things to remember

- Do NOT change the IP address of the primary (eth0) interface

- Check firewall settings of the virtual host (disable firewall if it is not needed)

- Check file and directory permissions and ownerships

- Check log files for error messages

- Check sysctl configurations (forwarding)

How to get started

- Register to the course in Oodi (email!) no later than 13.9. 23.59.

- Instructions will be sent by email on 14.9.

- Read instructions, assignment descriptions, and related material carefully

- Login to the assigned hosts from the hut.fi domain (host addresses, ports, and a password are sent by email to you)

- Start doing the assignments

PLAGIARISM

- Automatically leads to disciplinary measures and failing the course

- Every case will be recorded by the council

- Delayed last year's overall grading

Contact information

https://noppa.tkk.fi/noppa/kurssi/t-110.5x00

Office hours on
Tuesdays and Thursdays
at 13-14
A122, CSE building
Miro Lahdenmäki

coursecode@tkk.fi